

**ABSTRACT**

An optical add/drop multiplexer for adding or dropping a channel to an optical signal. The optical add/drop multiplexer includes a wavelength-division multiplexer to  
5 receive and transmit an optical signal, and a plurality of demultiplexing ports, each demultiplexing port is a path for a demultiplexed channel of the optical signal; and a plurality of add/drop multiplexers, wherein respective add/drop multiplexers are connected to respective demultiplexing ports , each of the add/drop multiplexers having a reflector for transmitting or reflecting an input channel, wherein each add/drop  
10 multiplexers is configured to add and/or drop a channel to/from from the wavelength-division multiplexer using the reflector.